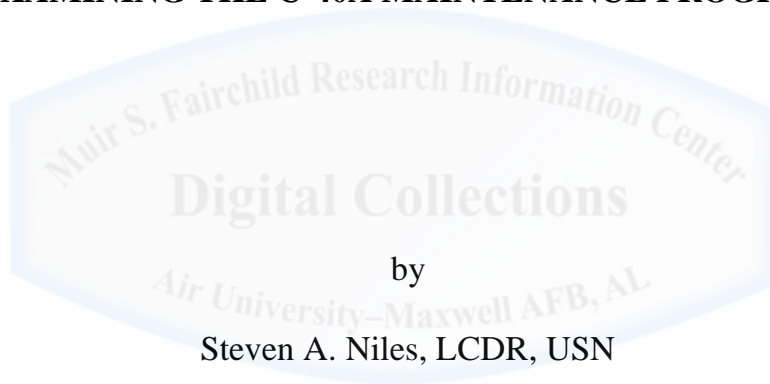


AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

**NAVY RESERVE FLEET LOGISTICS:  
EXAMINING THE C-40A MAINTENANCE PROGRAM**



A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

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## **ABSTRACT**

Navy Fleet Logistics Support Wing has been investigating the most efficient maintenance department structure for the C-40A aircraft squadrons. The current structure has a mix of civilian contract employees and Active Duty Navy Reserve (FTS) personnel with a supplement of Traditional Reservists (SELRES) on an as-available basis. This construct has shown the potential for maintenance manning shortfalls in specific instances.

This paper explores several options to alleviate the possible manning shortfalls, to include: 1) expanding the role of civilian contractors, 2) increasing the number of FTS personnel, 3) shifting to a construct similar to the Air Force Reserve Technician program, 4) establishing incentives for maintainers who are both civilian contractors and SELRES members, and 5) the creation of a Super SELERS position. The concept of a Super SELRES is a reservist who would be entitled to, as well as obligated to, much more than the typical two weeks of Active Duty each year.

Each of these five proposed options are examined and compared against a common set of evaluation criteria. These results are then compared against the estimated cost of the each particular option to determine their overall viability.

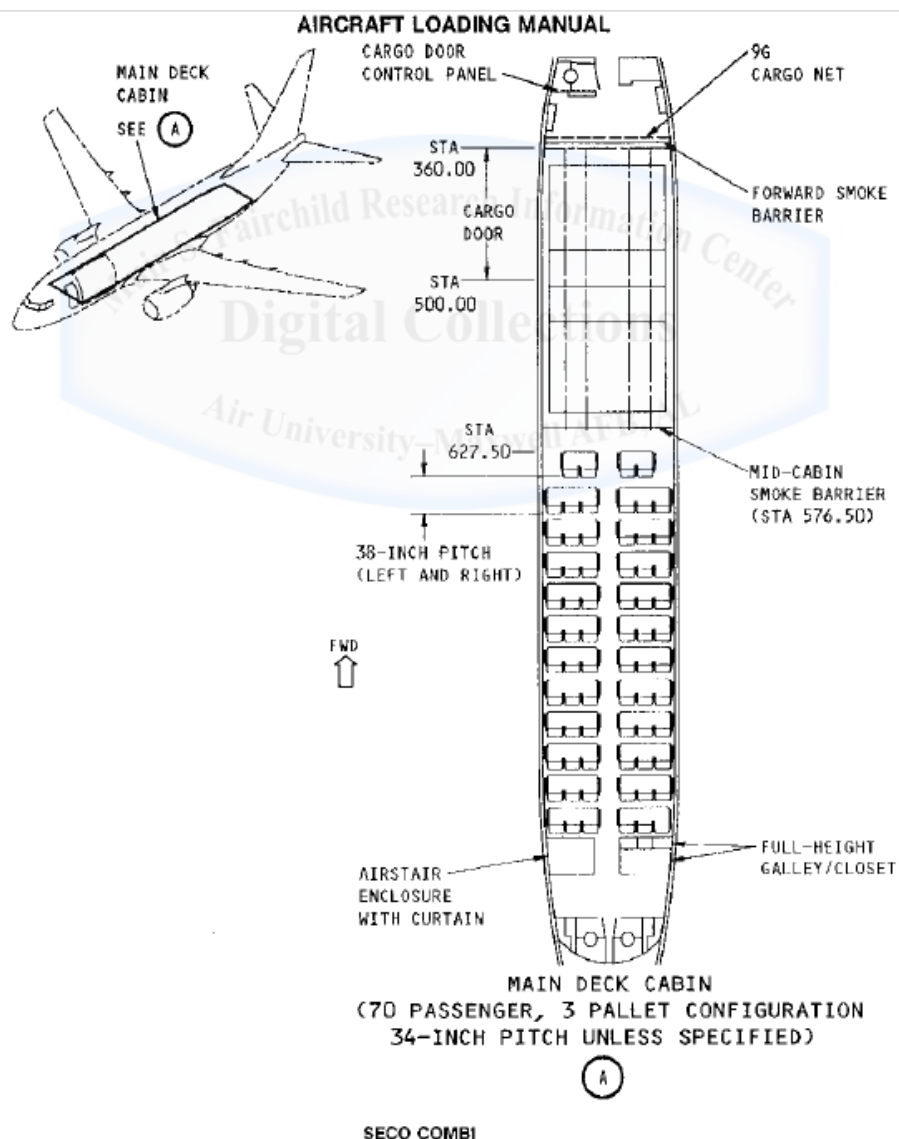
Through this examination the most advantageous solution was determined to be the Super SELRES option. It provides the most flexibility for the lowest estimated cost. The contractor/SELRES incentive solution was a close second, with the highest overall evaluation score. However, there are some marginal costs involved. The least beneficial option is to expand the role of the current civilian contractors. This option was seen as having the lowest overall feasibility at the highest cost.

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## INTRODUCTION

In 2001 the Navy began replacing its C-9B fleet of aircraft with the C-40A. The C-40A is a variant of the Boeing 737, one of the most widely utilized aircraft in the world. The main function of the C-40A is world-wide cargo and passenger transport in support of Navy fleet requirements. It can be configured to carry 120 passengers in a “pax” configuration, 8 cargo pallets in the “cargo” configuration, or combination of 3 cargo pallets and 70 passengers in the “combi” configuration.



Beginning in Fiscal Year 2009, Navy Reserve Fleet Logistics (VR) made significant changes to their C-40A aircraft maintenance program. The number of sailors performing maintenance was reduced in favor of civilian contract maintenance personnel. The old construct of military maintenance was led by a cadre of Full Time Support (FTS) sailors (similar to Air Force AGR) augmented with Selected Reservist (SELRES) sailors (similar to Air Force TR). The new contract maintenance plan eliminated 59% of the SELRES positions and 51% of the FTS positions, while introducing a number of civilian contractors to spearhead the maintenance efforts.<sup>1</sup>

In August 2010, CNA Analysis & Solutions conducted a study to explore the most productive method of integrating the civilian contract employees with the remaining sailor maintainers to make one consolidated maintenance team. In conducting this study, particular instances were noted in which manning shortfalls were recognized within the newly formulated VR maintenance organization. This study was conducted based on the assumption each squadron maintained a three aircraft inventory. It is important to note the squadrons were originally structured to support four C-9B aircraft. When the C-40A was brought in to replace the C-9B, the same four-aircraft support structure was retained. However, the plan included only three C-40A aircraft in each squadron. Adding a fourth C-40A aircraft to a squadron or downsizing the maintenance support under the current structure, as reviewed by the CNA study, would cause further shortfalls in manning.

The intent of this paper is to suggest solutions for managing the manning shortfalls identified by the 2010 CNA study. Several options will be explored and recommendations offered with the intent of providing an informed way forward for VR leadership.

## BACKGROUND

The Navy Fleet Logistics Support Wing provides responsive, flexible, and rapidly deployable air logistics to support the sustainment of combat, humanitarian, and peacetime operations. This organic Navy airlift capability enables an expeditionary Navy force. It allows the Navy to respond rapidly to overseas contingencies in support of Navy fleet requirements at a reduced cost with increased flexibility and efficiency. The small size of the Navy's organic airlift fleet is essential in its ability to remain cost effective, allowing newly introduced cost saving measures to be implemented rapidly. Navy Fleet Logistics is one of a wide spectrum of operations of the Navy Reserve providing the flexibility and responsiveness that enhances the Navy Total Force, acts as a true force multiplier, and provides unique skill sets toward fulfilling the Navy's requirements in an increasingly uncertain world.<sup>2</sup>

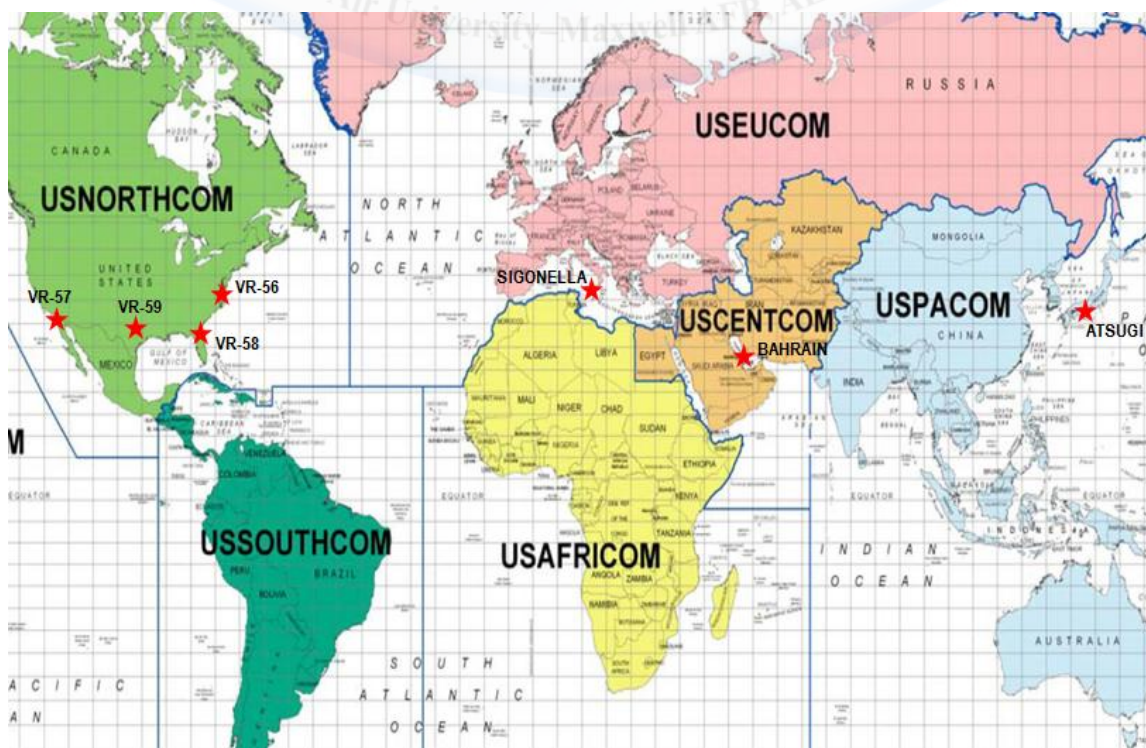




## THE VR MISSION

There are currently four fully operational C-40A squadrons assigned under Commander, Fleet Logistics Support Wing (CFLSW). Other than the civilian contract employees discussed above, each squadron is made up entirely of reservists, a mix of FTS and SELRES sailors, who operate three C-40A aircraft, provide organizational level maintenance on those aircraft, and support the necessary administrative functions. A C-40A squadron is located at each of four locations within the continental United States: VR-56, the newest squadron to transition to the C-40A, is located in Norfolk, VA; VR-57 is located in San Diego, CA; VR-58 in Jacksonville, FL; and VR-59 in Fort Worth, TX. The squadrons support Navy unique essential airlift requirements with flight operations out of their homeport and three rotational detachment sites.

The detachment sites are located in Sigonella, Italy; Bahrain; and Atsugi, Japan. Each squadron performs an average of 23 detachment cycles each year. A single detachment cycle is approximately two weeks, to coincide with an Annual Training (AT) period, and is performed at





one of the three detachment sites, with one C-40A aircraft, two 5-man flight crews, and a 6-man military-only maintenance crew. This military maintenance crew can be any blend of FTS and SELRES as necessary to ensure all required maintenance manning positions are filled.

At homeport, aircraft maintenance is performed by a blend of sailors and civilian contractors. However, under the current contract, the civilian employees perform maintenance only at their respective squadron's home station and are restricted from deploying on an overseas detachment.

The work routine of the military-only detachment maintenance crew is predicated by the flight schedule which does not typically conform to the normal work schedule of the civilian employee. Military flights can be scheduled at any time, seven days a week. A detachment maintenance crew is required to be at the work site to prepare an aircraft for departure and to recover the aircraft upon its return. Each of these evolutions is usually two to three hours of labor for the maintenance team. The first flight of the day for VR aircraft usually has a scheduled departure time of 0900, requiring the maintenance crew to begin work at 0600. However, the return time can vary greatly depending on the particular mission. Many times the aircraft will return late in the afternoon or evening, and could require additional maintenance actions over and above the recovery evolution. This sets up more of a random swing-shift with varying amounts of downtime during the day and with the possibility of short nights of rest for the maintenance crew. The detachment maintenance crew does not have any specifically scheduled days off, only random days when the aircraft is away overnight or when there happens to be gaps in the flight schedule when the aircraft is not required for flight operations. Although the schedule can be fairly rigorous at times, the nature of the two week SELRES detachment

cycle replenishes personnel regularly, and the camaraderie built among the military members enables morale to be sustained at a high level.

#### **CURRENT VR CONTRACT MAINTENANCE PROGRAM**

Each C-40A squadron employs approximately 14 civilian contract maintenance personnel. The contract allows for a work schedule of 0730-1600, Monday – Friday.<sup>3</sup> Any maintenance actions required outside these times are covered by the Sailor maintenance team. Overtime and travel are not allowed under the current contract.<sup>4</sup> With the existing stipulations, contract employees provide maintenance services only at the homeport and are also prohibited from deploying to the various detachments sites. At each of the squadrons, the contract employees have integrated well with the FTS maintainers to form a cohesive maintenance team for the home station. Several of the contractors have prior military service, some of whom have come from the VR community. Many others bring a breadth of knowledge from years of experience with civilian companies working on similar Boeing aircraft. The squadron Maintenance Officer (an FTS reservist) and the Civilian Contract Lead both have a working knowledge of the contract details, and work together on setting priorities and the assigning of tasks for the civilian and military maintenance teams.

## RESEARCH METHODOLOGY

The current construct of the VR maintenance program has shown the potential for manning shortfalls in particular instances. Five possible solutions for these manning deficiencies are proposed. Each solution is examined and compared against a common set of evaluation criteria. The results are then compared against the estimated cost of each particular solution to determine their overall viability.

### PROBLEM – DETACHMENT MANNING

There are two specific instances in which maintenance manning shortfalls are identified in support of the VR mission by the August 2010 CNA Analysis & Solutions study, *C-40A Maintenance Concepts*. The first instance specified is in the case where a particular squadron has three simultaneous detachments with all three C-40A aircraft forward deployed.<sup>5</sup> The second instance of a manning shortfall is expressed through the inability to attain the CFLSW individual personnel deployment tempo (ITEMPO) goal of 90 days or less for each sailor, while supporting the estimated 23 detachment cycles per squadron within a fiscal year.<sup>6</sup>

#### Three Simultaneous Detachments

To date, careful planning has limited the possibility of a single C-40A squadron having all three of its aircraft assigned on detachment simultaneously. However, as aircraft age they tend to require more unscheduled maintenance. It is conceivable that an unscheduled maintenance issue could require a squadron to provide an additional detachment aircraft to cover for another squadron. This possible additional strain on detachment aircraft scheduling increases the likelihood of a squadron deploying all three of its aircraft simultaneously. Three aircraft on

detachment require that a squadron is capable of manning three teams of fully qualified maintenance personnel. Taking into account the necessary time to train newly assigned maintenance personnel, the squadrons are simply not manned adequately to support three fully qualified maintenance teams, even if the contract employees were allowed to deploy to the detachment sites.<sup>7</sup>

### 90-day ITEMPO

The Navy tracks individual time away from homeport for each sailor with a system called the Individual Personnel Tempo Program (ITEMPO) managed by the Chief of Naval Operations.<sup>8</sup> The number of days an individual sailor spends on detachment counts toward his total annual ITEMPO. The stated goal for CFLSW is to maintain ITEMPO below 90 days in a fiscal year for each sailor in the VR community.<sup>9</sup> With 23 or more detachments in a fiscal year for a single C-40A squadron, this 90-day ITEMPO goal is almost always exceeded.<sup>10</sup> The same 90-day ITEMPO manning shortfall would continue to exist even if civilian contract employees were allowed to deploy overseas as part of the detachment manning plan.<sup>11</sup>

### SELRES Participation

The two above cases of manning shortfalls could be mitigated by a greater utilization of SELRES maintenance personnel on the overseas detachments. The manning issues presented in the CNA Analysis & Solutions study only take into account the efforts of the FTS and civilian contract employees and do not include the contributions of SELRES. The study does reveal the fact that the contributions of SELRES maintainers appear to be quite low. There are 47 SELRES maintenance billets remaining in each C-40A squadron after restructuring to incorporate civilian

contract maintenance. Analyzing the table below, during the 2008 and 2009 detachment cycles, on average each squadron was required to fill 113 detachment maintenance positions per year.

<sup>12</sup>	Squadron	Total Number of Detachment Maintenance Positions	Number of SELRES Fills
2008	VR-57	100	14
	VR-58	126	9
	VR-59	100	11
2009	VR-57	126	13
	VR-58	112	4
	VR-59	Data Not Available	Data Not Available

Of the 113 available positions, only 10 were filled by SELRES maintainers. This is to say in a two year sample, only 10 out of 47 of the SELRES maintenance personnel from each squadron, or 21% have been utilized for overseas detachments, filling only 9% of the available positions.<sup>13</sup> The question remains as to whether this disparity is a training, manning, or a management issue.

## EVALUATION CRITERIA

The CNA Analysis & Solutions study used a particular set of evaluation criteria to analyze proposed methods of integrating civilian contract employees into the C-40A aircraft maintenance program. The same set of evaluation criteria are used here to assess solutions to the identified manning shortfalls, with the addition of a cost estimate. The criteria have been weighted based on their relative importance as determined by inputs from squadron level leadership.<sup>14</sup> Operational Flexibility, and Training and Experience of Personnel were weighted with a multiple of 3, as the two most important evaluation criteria. Clear Chain of Command, and Productivity and Performance were determined to be moderately important and weighted

with a multiple of 2. Maintaining Navy Culture was assigned a weighted multiple of 1, as it was determined to be the least significant of these evaluation criteria.

### Operational Flexibility

Operational flexibility is evaluated both at homeport and at the detachment sites. The maintenance program must have the ability to adapt as quickly as there are changes to the flight schedule. The evaluation of operational flexibility will be based on the ability to provide maintenance functions not only during normal work hours, but also at night and on weekends and holidays. Operational flexibility is paramount to the Navy's organic airlift capability in maintaining an expeditionary Navy force.

### Training and Experience of Personnel

The continuing support of adequately trained and experienced personnel is of the highest importance to the VR community. One of the main arguments for originally obtaining civilian contract maintenance personnel was to have the ability to draw on the vast amount of commercial Boeing 737 experience available in the civilian market. In evaluating the training and experience of maintenance personnel the determining factors are recent and continuing experience, as well as longevity on aircraft type.

### Clear Chain of Command

The ability to maintain a clear chain of command both at homeport and on detachment is also an important factor in determining the feasibility of a proposed solution to the manning deficiency. Workers and managers must have well established and easy to understand methods of resolving conflicts and grievances, assigning of tasks, and delegation of authority.



### Maintaining Navy Culture

The ability to maintain the Navy culture is expressively relevant to the VR community. Sailors have a sense of pride and patriotism in their work. The ability to work as a team toward a common goal and depend upon one another is less common outside of the military. The camaraderie built among military service members under harsh working conditions enables increased morale and devotion to duty.

### Productivity and Performance

Another evaluation criterion determined to be relatively significant is Productivity and Performance. The evaluation of productivity and performance is a measure of the amount of work that a given group can accomplish in a given amount of time. The quality of work is assessed as well as what factors could motivate a particular group to perform better or provoke undesirable results.

### Cost

The single most significant evaluation criterion is the analysis of the cost benefit. Therefore, cost will be compared against the sum of the products of the other evaluation criteria multiplied by their determined weight. Any solution proposed must be economical. Inexpensive fixes must nonetheless achieve substantial results. However, relatively costly options must attain significantly more visible results. Analyzing the cost in this manner allows a direct comparison of cost to benefit for each of the proposed solutions.

## **ANALYSIS**

This section introduces five possible solutions to the VR maintenance manning deficiencies. The pros and cons of each solution are analyzed and rated against the evaluation criteria on a scale from -3 (much worse) to +3 (much better). The product is determined by multiplying the given rating by the weight assigned to the particular evaluation criteria. The products of these results are then totaled and compared against the estimated cost of the particular option to determine its overall cost-benefit and therefore, its viability as an effective solution.

### **SOLUTION 1 – CONTRACTORS ON DETACHMENT**

Solution 1 examines the feasibility of covering the manning shortfall by modifying the current civilian contract. The proposed changes to the contract include the ability to deploy the civilian employees to the various overseas detachment sites.

#### Operational Flexibility

Solution 1 would have very little if any impact on operational flexibility at homeport. The minimum number of maintenance personnel, whether civilian employee or FTS, would not be affected. The shortage of one civilian employee leaving homeport for detachment would have to be covered by an FTS maintainer filling that position. However, at a detachment site, operational flexibility would become a limiting factor. Modifying the detachment flight schedule to conform to the established civilian work schedule would be impracticable. Whereas attaining the ability to have maintenance available 24 hours a day, with civilian employees,

would require two shifts of civilian detachment maintenance personnel or require drastic, and likely expensive, changes to the civilian employee work schedule.

#### Training and Experience of Personnel

The contract employee solution rates ahead of the other proposed solutions on training and experience of maintenance personnel. The Navy began operating the C-40A in 2004, which means at best a military member has only had experience on C-40A maintenance since that date. Civilian contract employees can arrive at a C-40A squadron with many more years of experience on a variety of Boeing products and is therefore likely to be well ahead of their military counterparts in this aspect.

#### Clear Chain of Command

At homeport the chain of command and interface between contractors and Navy personnel is well defined and understood. Any issues are resolved between the designated contract lead and military representative. However, on a detachment as personnel are rotated into the specific theater every 15 to 30 days, the contract lead and the military representative would also be changing. Personnel on both sides of the civil-military contract would likely be placed into the leading positions with very little knowledge of the specifics of the contract. Therefore, a clear chain of command is rated quite low for Solution 1.

#### Maintaining Navy Culture

Likewise, the maintaining of Navy culture rates low for this solution. Anytime Navy personnel are replaced with civilian employees there will be a corresponding reduction in Navy

culture. This proposed solution would likely replace many, if not all the opportunities for FTS maintenance personnel to be deployed on detachment. A baseline number of FTS are required at each home station to ensure there is maintenance coverage for times when civilian contractors are not available (nights, weekends, and holidays). The increased number of personnel required to fill the detachment manning using civilian personnel would lead to fewer civilian personnel available at the homeport. This, in turn, increases the demand for FTS at the home station, reducing their flexibility to deploy.

### Productivity and Performance

The productivity and performance of civilian contract employees is quite high and is driven by the performance standards stipulated in the contract. Their professionalism and breadth of knowledge is rated highly. The higher demands of the overseas detachment work schedule could have some negative effects on civilian employees. However, if the required modifications to the contract stipulate an increase in compensation commensurate with the increased workload, any negative effects are likely to be insignificant.

		EVALUATION CRITERIA					Total Score	Cost
		Operational Flexibility	Training & Experience	Chain of Command	Navy Culture	Productivity & Performance		
Weight		3	3	2	1	2		
Contractors on Detachment	Rating	-3	+3	-3	-3	+3		
	Product	-9	+9	-6	-3	+6	-3	\$\$\$

### Cost

The cost of Solution 1 appears to be the highest of any of the proposed solutions. The possibility of maintenance actions being required at any time, day or night, force the requirement

of two maintenance shifts. On top of this, there are the additional costs involved in attaining work visas, country clearances, and appropriate overseas billeting for civilian personnel.

## **SOLUTION 2 – MORE FTS**

Expanding the number of FTS in the squadrons is explored in Solution 2. When the civilian contract maintenance concept was first introduced, several of the existing FTS maintenance positions were removed and replaced by civilian positions. Reinstating a portion of the FTS positions that have subsequently been filled with civilian employees could be a hard sell to the VR community. Continually modifying a squadron's manning requirements has inherent difficulties. Both creating additional FTS billets and exchanging some of the civilian positions for FTS billets should be examined. As noted in the CNA study, a one-for-one swap of civilian employees for FTS sailors is not enough to cover the manning shortfalls.<sup>15</sup> Additional FTS billets would still be required in this approach.

### Operational Flexibility

Acquiring additional FTS billets increases operational flexibility at homeport by having more personnel available for night, weekend, and holiday tasking. Also an increase in the number of FTS maintenance personnel would have a corresponding decrease in a squadron's ITEMPO and reduce some of the strain of multiple detachments.

### Training and Experience of Personnel

Purely gaining FTS billets would have an overall increased effect on the training and experience level of a squadron. However, trading some of the civilian employee positions for

FTS billets would possibly contribute to a small decrease in the overall experience level as a result of losing highly experienced civilian personnel.

#### Clear Chain of Command

This solution would essentially have no effect on the chain of command compared to the current make-up of the squadrons. All established lines of communication would continue to function in the same manner as they do today.

#### Maintaining Navy Culture

An increase of FTS billets would have a corresponding increase in the Navy culture. This increase of military personnel would also reduce the collateral duty burden on the members of a squadron. Collateral duties include those tasks not performed by civilian contractors that are required of military personnel outside of their regular job description. These tasks include: Physical Fitness Coordinator; Drug and Alcohol Program Administrator; Morale, Welfare & Recreation Representative, Small Arms Qualification Coordinator, etc.

#### Productivity and Performance

Depending on the specific manner in which solution 2 is implemented, there could be differing effects on productivity. If there is only an increase in FTS billets, there would be a slight increase in productivity and performance, as there are more personnel to complete the same amount of work. If civilian positions are traded for FTS billets there would be a slight decrease due to the relative experience levels of the two types of employees. In any event the change in productivity and performance appears to relatively minor.



		EVALUATION CRITERIA					Total Score	Cost
		Operational Flexibility	Training & Experience	Chain of Command	Navy Culture	Productivity & Performance		
Weight		3	3	2	1	2		
More FTS	Rating	+3	+1	0	+1	+1		
	Product	+9	+3	0	+1	+2	+15	\$

### Cost

Anytime personnel positions are added there is a measurable cost associated. The overall expenses of Solution 2 are similar to those of Solution 1, since the increase of personnel is similar. However, the costs involved with Solution 2 would be noticeably less than Solution 1, as the increased costs of sending civilian personnel on detachment, as stated above, are avoided.

### **SOLUTION 3 – ART PROGRAM**

Solution 3 takes a look at the Air Force Reserve Technician (ART) program to provide a similar basis for comparison. The ART program was established in the 1950s in an effort to eliminate PCS relocation expenses and as a means to retain highly skilled personnel in key positions that might otherwise leave the service.<sup>16</sup> In this scenario, rather than having maintenance performed by a contracted civilian company, the VR maintenance program would become federalized and would employ government civilian employees to carry out the Navy's maintenance program. However, under the Reserve Technician construct, the government civilian employees are also required to be Traditional Reservists (SELRES). The two jobs are tied together allowing Reserve Technicians to be deployed in a military status as a reservist (i.e., for their Annual Training or on Active Duty for Training) with the command that they support as civilian employees during the regular work week. This type of construct could help to alleviate some of the issues with detachment manning.

### Operational Flexibility

With the introduction of Reserve Technicians, some increases of operational flexibility at homeport would likely be evidenced. When circumstances dictate the need for additional maintenance support outside of normal working hours, the Reserve Technician can cover the demand by changing status. After completing a civilian day shift, a Reserve Technician is allowed to perform an additional four to eight hours of work in a reserve drill status (i.e., RMP or IDT).<sup>17</sup> At an overseas detachment site Reserve Technicians would be in a military status and function in the same manner as SELRES personnel currently operate while on orders.

### Training and Experience of Personnel

Overall there would likely be a small increase in the experience level of the squadron maintenance personnel. Not only would the highly experienced civilian employees be more versatile at homeport, but they would also be able to bring that experience to the detachment sites as reservists. Additionally, the squadron's overall ITEMPO would be reduced by having the ability to easily schedule these highly trained personnel on detachment in SELRES positions.

### Clear Chain of Command

The structure introduced here poses some distinctive confusion in the chain of command that is not experienced elsewhere in the Navy. A Reserve Technician working as a government civilian would fall under a particular set of rules and regulations established through a collective bargaining agreement and managed through a union. However, when the same Technician changes status, say to work overtime on an RMP, he would then fall under the UCMJ and his military chain of command. The Air Force avoids this confusion through setting up the entire

command structure of the squadron with all personnel as Reserve Technicians rather than employing a mix of personnel from different service categories. When management or disciplinary actions become required, it is necessary to establish which status the individual in question is employed under before proceeding with any administrative actions.<sup>18</sup> However, with all personnel in the maintenance department falling under the Reserve Technician construct, the chain of command would be the same for all personnel, no matter which status they were working under. Therefore, this solution provides a slight improvement over the current construct with one chain of command for the civilian employees and another for the FTS and SELRES personnel.

#### Maintaining Navy Culture

There would likely be a slight increase in Navy culture as the civilian employees would become indoctrinated in the Navy through their required SELRES status. However, a new culture could emerge among those who carry the dual status having the ability to shift back and forth between civilian and military status. Drawbacks of this new culture seem rather unlikely as long as there is well established protocol for transferring between civilian and military status. Although there would be an increase in Navy personnel and thus an increase in Navy culture, a unionized workforce would be introduced, adding a layer of bureaucracy and further transforming the culture.

#### Productivity and Performance

With Solution 3, there is likely to be a small decrease in the productivity and performance of the maintenance personnel. It is likely that some of the same individuals, who are currently

employed under the civilian contract, would be hired as federal civilian employees under the Reserve Technician program. However, the nature of the dual status requirement—the government civilian employees being required to maintain military status as reservists—would likely prohibit employing a portion of the highly skilled civilians that the VR community would pursue for these positions.

		EVALUATION CRITERIA					Total Score	Cost
		Operational Flexibility	Training & Experience	Chain of Command	Navy Culture	Productivity & Performance		
Weight		3	3	2	1	2		
Reserve Technician Program	Rating	+2	+1	+1	+1	-1		
	Product	+6	+3	+2	+1	-2	+10	\$\$

### Cost

The cost effectiveness of the Reserve Technician has been extensively studied in the Air Force. The Reserve Technician program has proven to have costs that are very similar to that of a full time military force.<sup>19</sup> The overall assessment of Solution 3 is that it is more expensive than Solution 2, but less than Solution 1. The additional costs of sending civilian employees overseas are again avoided with this solution. However, the probable costs of establishing a Reserve Technician program and its administration seem to outweigh the advantages of the program. There may be other communities of the Navy that could benefit from adopting a Reserve Technician program, warranting further research. But in this situation it appears to be on par with eliminating the civilian contract and returning to the original number of FTS maintenance personnel.

#### **SOLUTION 4 – CONTRACTOR/SELRES INCENTIVES**

Solution 4 is the same spirit as the ART program presented in Solution 3 except that there are no binding obligations tying the civilian position to the SELRES billet. Instead, it is suggested to incentivize the civilian contract employees to become SELRES members of the squadron. Likewise the VR community should look to enlist SELRES maintenance personnel that have the ability and desire to qualify for a civilian position in the squadron, should one become available. The incentive could easily be written into the existing contract. The idea would be to offer an annual bonus for those civilian employees who are able to maintain the equivalent SELRES position in good standing.

##### Operational Flexibility

The same flexibilities of Solution 3 are seen with Solution 4. Overtime expenses of the civilian contract could be avoided through utilizing those civilian employees who are also SELRES members, placing them in a drilling status instead. These unique individuals could also be easily worked into a detachment schedule. The subtle difference between this and the previous solution is in avoiding the complexities of a unionized labor force, though special attention would be required to ensure compliance with established labor laws.

##### Training and Experience of Personnel

Here as well, the level of trained and experienced personnel will have the same advantages of Solution 3. However, this solution would not restrict the hiring of a highly qualified civilian employee that does not desire to, or cannot qualify to be a SELRES.

### Clear Chain of Command

The drawbacks on the chain of command are similar to those in Solution 3 as well. It must be made clear whether an employee is working as a civilian or as a military member. In Solution 3, the employee is required to wear the military uniform regardless of which status he is working in and who he is working for at the time. In this solution the employee would wear the established uniform of the civilian company (e.g. khaki pants and a polo shirt with the company logo) when working as a contractor, and would be wearing the military uniform when in a drill status or on military orders. The distinction between civilian and military status may be more clearly defined in this scenario. However, this solution is rated with a slight decrease because those individuals who are both civilian employees and SELRES members would have two separate chains of command in essentially the same work environment.

### Maintaining Navy Culture

This solution spreads the Navy culture among the civilian employees who choose to become SELRES. Then, with some of the civilian employees as SELRES, they will spread a better understanding of the Navy culture among the other civilian employees. This solution is rated above Solution 3 because a new status of military employee is not added. Instead of creating a new subculture, the civilian and military cultures are brought closer together.

### Productivity and Performance

The advantages in productivity and performance will mainly be seen among the SELRES personnel in the squadron. Interjecting the civilian employees into the SELRES workforce will help to increase the overall skill level of the SELRES members. As it is now, the SELRES



personnel have very little interaction with the highly experienced civilian employees because their work schedules rarely coincide. Civilian employees work only Monday – Friday, whereas the SELRES members are mainly present only for drill weekends and are deployed on overseas detachments. Civilian employees who are also SELRES members would likely help to identify other SELRES members who are top performers. With the introduction of this incentive, SELRES members will likely be motivated to obtain their maintenance qualifications more quickly. Once they acquire their maintenance qualifications on the military side, it is much easier to obtain the civilian qualifications and thus, become eligible for civilian employment with the squadron, as well as the incentive.

		EVALUATION CRITERIA					Total Score	Cost
		Operational Flexibility	Training & Experience	Chain of Command	Navy Culture	Productivity & Performance		
Weight		3	3	2	1	2		
Contractor/ SELRES Incentives	Rating	+2	+3	-1	+2	+3		
	Product	+6	+9	-2	+2	+6	+21	\$

### Cost

The additional cost incurred with this solution lies only in the dollar amount of the incentive deemed necessary. It could be somewhat difficult to encourage an established, more mature civilian employee to enlist as a SELRES. However, a modest offer combined with the educational, medical and many other incentives already offered with a military enlistment could prove quite appealing.

### **SOLUTION 5 – SUPER SELRES**

Solution 5 investigates the idea of the Super SELRES sailor. The concept of a Super SELRES sailor is a reservist who would be entitled to, as well as obligated to, much more than

the typical two weeks of Active Duty each year. This notion is in the spirit of changes to law and policy currently under review at the Office of the Assistant Secretary of Defense for Reserve Affairs. Specifically, work is being completed exploring the “continuum of service”. This change will allow personnel to more easily transition between varying levels of participation and between active and reserve statuses.<sup>20</sup> The suggested approach is to annually obligate a set amount of funding for additional Annual Training (AT) or ADT that would be guaranteed to a selected number of SELRES individuals. An increasing number of occupations today allow for much more flexibility for SELRES participation than in the past. A growing amount of reservists can devote much more than the typical requirement—one weekend per month and two weeks per year. Under current VR programs there are a small number of SELRES who are mobilized for an entire year to complement manning structures. If each of these mobilizations were divided up into smaller increments for a larger number of SELRES maintainers the benefits could be substantial.

#### Operational Flexibility

The CFLSW goal for the single mobilized SELRES individual is a 90-day ITEMPO within a given fiscal year. If instead, the single mobilization were divided into four separate mobilizations, the four Super SELRES could each realistically attain a 45-day ITEMPO. That is, each of the four Super SELRES completing three detachment periods on a set of 90-day orders. This results in at least double the available detachment manning availability than with the single, year-long mobilization. Additionally, the Super SELRES sailors would know well in advance when they are scheduled to perform their 90-day obligation and could therefore afford a civilian employer more time for any coordination that is required on their part.

### Training and Experience of Personnel

This solution shows the possibility for a small increase in training and experience levels compared to the current situation. There could be slight decreases of experience when sending a higher number of SELRES on detachment simultaneously. However, there would likely be slight increases in overall experience levels, as this solution would require a higher number of trained SELRES personnel, contributing to an overall benefit.

### Clear Chain of Command

Changes in the effectiveness of the chain of command are improbable with this solution. There are the same personnel in the same positions. The only modification is the duration specific individual SELRES personnel would be participating. Therefore, no change is noted for clear chain of command.

### Maintaining Navy Culture

This method personifies a Navy solution to a Navy problem. It allows for a larger number of SELRES Sailors to become more involved with the squadron for longer periods of time.

### Productivity and Performance

Solution 5 creates more opportunities for SELRES maintainers to become increasingly proficient. It provides motivation for SELRES to attain their maintenance qualifications so that they can be offered the more involved role as a Super SELRES.

		EVALUATION CRITERIA					Total Score	Cost
		Operational Flexibility	Training & Experience	Chain of Command	Navy Culture	Productivity & Performance		
Weight		3	3	2	1	2		
Super SELRES	Rating	+3	+1	0	+3	+2		
	Product	+9	+3	0	+3	+4	+19	0

### Cost

There are no additional costs associated with this solution. For the same cost as a one-year mobilization there could be four Super SELRES sailors. The difficulty in this approach is that the funding for mobilizations is managed on a year to year to basis. The ability to guarantee someone a Super SELRES position on a long term basis could be somewhat difficult. In order to make this solution effective, continued research would be required to determine the viability of having a Super SELRES position funded on a suggested three-year term or longer.

## SUMMARY

Throughout the analysis, each solution was examined and compared against a common set of evaluation criteria. A summary of the analysis is presented in the table below. The criteria have been weighted based on their relative importance as determined by inputs from squadron level leadership.<sup>21</sup> The pros and cons of each solution are analyzed and rated against the evaluation criteria on a scale from -3 (much worse) to +3 (much better). The product is determined by multiplying the given rating by the weight assigned to the particular evaluation criteria. The single most significant evaluation criterion is the analysis of the cost benefit. Therefore, cost is compared against the sum of the products of the other evaluation criteria multiplied by their determined weight. Analyzing the cost in this manner allows a direct comparison of cost to benefit for each of the proposed solutions. Any solution proposed must be economical. Inexpensive fixes must nonetheless achieve substantial results. However, relatively costly options must attain significantly more visible results.

Surprisingly, the solutions rated as more desirable overall are also associated with a lower estimated cost. Before analyzing this problem carefully, it seemed the most reasonable course of action would be Solution 1—modifying the current contract to allow the civilian contractors to be deployed on overseas detachments. However, after careful investigation, it appears that not only is this course of action the most expensive, it is also the least desirable.

Through this examination the most advantageous solution was determined to be the Super SELRES option. It provides the most flexibility for the lowest estimated cost. The contractor/SELRES incentive solution was a close second, with the highest overall evaluation score. However, there are some marginal costs involved.

			EVALUATION CRITERIA					Total Score	Cost
			Operational Flexibility	Training & Experience	Chain of Command	Navy Culture	Productivity & Performance		
Weight			3	3	2	1	2		
SOLUTIONS	Contractors on Detachment	Rating	-3	+3	-3	-3	+3		
		Product	-9	+9	-6	-3	+6	-3	\$\$\$
	More FTS	Rating	+3	+1	0	+1	+1		
		Product	+9	+3	0	+1	+2	+15	\$
	Reserve Technician Program	Rating	+2	+1	+1	+1	-1		
		Product	+6	+3	+2	+1	-2	+10	\$\$
	Contractor/SELRES Incentives	Rating	+2	+3	-1	+2	+3		
		Product	+6	+9	-2	+2	+6	+21	\$
	Super SELRES	Rating	+3	+1	0	+3	+2		
		Product	+9	+3	0	+3	+4	+19	0

### RECOMMENDATIONS

The notion of a Super SELRES sailor, presented in Solution 5, is the most attractive course of action. There are no perceived increases in cost to CFLSW and there are many desirable effects that can be taken advantage of almost immediately. Furthermore, with similar reforms under review by the Office of the Assistant Secretary of Defense for Reserve Affairs, there may be an additional funding available in the near future to further support the Super SELRES solution.

Even prior to the approval of potential funding there are steps that can be taken toward the initiation of a Super SELRES program. Each year CFLSW is granted additional funding to bring a number of SELRES personnel on to active duty for a one year mobilization. If each of these one year mobilizations were divided into four 90-day periods, four Super SELRES positions could be established in their place. Each of these four Super SELRES personnel could be identified and assigned to a quarter of the fiscal year associated with the mobilization funding. Since funding for mobilizations is granted on an annual basis, it is understood the exact number



of mobilizations, and therefore, the number of Super SELRES positions is not specifically known from year to year. However, priority for selection to follow-on fiscal year Super SELRES positions should be granted to those personnel who would be actively serving in those positions. Identifying each Super SELRES by which fiscal year quarter they are obligated to will add to the consistency of the position. It will allow for ease of de-confliction with civilian employment and help to maintain continuity of Super SELRES personnel.

As presented in Solution 4, introducing an incentive for contract employees, who are able to become SELRES members of their squadron, is another highly recommended course of action. This solution is associated with the most desirable effects overall. The only recognized drawback is the dual-status nature of this type of position, in which an employee has one chain of command when working as a civilian and another chain of command when working as a SELRES member. The incentive could easily be written into the existing contract as an addendum. The idea would be to offer an annual bonus to those civilian employees who are able to maintain the equivalent SELRES position in good standing. The incentive would motivate civilian employees to become qualified to serve as military reservists and vice versa. This would also be an attractive alternative to current FTS members who enjoy the squadron and the military but no longer desire to relocate with every three year tour.

With both of these recommended solutions, there is an increased demand for a reliable SELRES force. The reasons behind the low participation of SELRES members on detachment must be resolved. These two proposed solutions will add to the training opportunities afforded to SELRES members. The 90-day period of active duty established for the Super SELRES personnel will allow for more consistency of training over drill weekends alone. Also, gaining civilians as SELRES members of the squadron allows for better cross training between the

highly skilled civilian labor force and the part time reservists. Establishing a Super SELRES position and implementing incentives for contractors to become SELRES members will help the Navy Reserve in its mission to deliver full-time excellence through part-time service via timely, cost-effective operational capabilities which are relevant and valued by the Total Navy Force. The proposed solutions will help to support the Navy Reserve's Strategic Plan to ensure it will continue to deliver the right capabilities to the Nation, the Navy and Joint Forces at the right time, in the right place, and at the right cost.<sup>22</sup>

## CONCLUSION

As we begin to draw down forces after over a decade of military operations in Iraq and Afghanistan, we must now prepare to take steps to protect our nation's economic vitality. Decisions regarding the size and shape of the force over subsequent program and budget cycles must be made to conform to the proposed defense strategy. We are determined to maintain a ready and capable force, even as we reduce our overall capacity.<sup>23</sup>

At this point in time it is imperative we find imaginative ways to do more with less. The two solutions recommended here, incentivizing civilian contractors to join the SELRES force and implementing a Super SELRES program, will do just that. These are the type of creative solutions required to make the force more economical. As Vice Admiral Debbink has stated, "The vision for the Navy Reserve calls for us to be innovative, ready and agile. Take those three and put them together. Then, focus on our stated goal of providing valued capabilities...that's what the Navy is going to value in the future."<sup>24</sup>

## NOTES

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<sup>1</sup> Jennifer Ezring, C. Chad Sheldon, Martha Koopman, *C-40A Maintenance Concepts* (CNA Analysis & Solutions, August 2010), 17.

<sup>2</sup> VADM Dirk J. Debbink, Chief of Navy Reserve, *Ready Now: The Navy Reserve Strategic Plan – 2012*, 1 October 2011.

<sup>3</sup> NAVSUP FLC Jacksonville, ISSOP Division, to Strategic Technology Institute, Inc., DD Form 1155, *Order for Supplies or Services, Contract Purchase Order/Agreement No. GS-10f-0444X*, 22 December 2011.

<sup>4</sup> Ibid.

<sup>5</sup> Ezring, Sheldon, and Koopman, *C-40A Maintenance Concepts*, 4.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid., 3-4.

<sup>8</sup> Department of the Navy, Office of the Chief of Naval Operations Instruction (OPNAVINST) 3000.13C, *Personnel Tempo of Operations*, 16 January 2007, 1.

<sup>9</sup> Ezring, Sheldon, and Koopman, *C-40A Maintenance Concepts*, 4.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid., 46

<sup>13</sup> Ibid., 17, 46.

<sup>14</sup> CDR Robert T. Rascoll, CNAFR Staff and former Commanding Officer VR-57; CDR Anthony H. Miller, Commanding Officer VR-57; LCDR Dan Pugh, Maintenance Officer VR-57, to the author, e-mail, 4-6 April 2012.

<sup>15</sup> Ezring, Sheldon, and Koopman, *C-40A Maintenance Concepts*, 4.

<sup>16</sup> Gerald T. Cantwell, *Citizen Airmen: A History of the Air Force Reserve, 1946-1994* (Honolulu, HI: University Press of the Pacific, 2005), 160.

<sup>17</sup> Capt Daniel R. Posch, USAF ART AFRC 908 MXS/MXM, to the author, e-mail, 09 November 2011.

<sup>18</sup> Ibid.

<sup>19</sup> Cantwell, *Citizen Airman*, 306.

<sup>20</sup> Total Force Integration Course, ACSC, AY2012.

<sup>21</sup> Rascoll, Miller, Pugh, to the author, e-mail.

<sup>22</sup> Debbink, *Ready Now*.

<sup>23</sup> US Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21<sup>st</sup> Century Defense* (Washington, DC, January 2012), 1, 7.

<sup>24</sup> Timothy D. Moon, "The Navy Reserve Strategic Plan, an interview with VADM Dirk Debbink," Navy: Association of the United States Navy (AUSN), Volume 59, No. 2, February/March 2012, 18.

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